

PART COOPERATION TREATY

PCT

NOTIFICATION OF THE RECORDING
OF A CHANGE(PCT Rule 92bis.1 and
Administrative Instructions, Section 422)

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| Date of mailing (day/month/year) 23 March 2000 (23.03.00) |
| Applicant's or agent's file reference 23454-PC |
| International application No. PCT/SE99/00260 |

From the INTERNATIONAL BUREAU

To:

EHRNER & DELMAR PATENTBYRA AB
P.O. Box 10316
S-100 55 Stockholm
SUÈDE

IMPORTANT NOTIFICATION

International filing date (day/month/year)
24 February 1999 (24.02.99)

| | | | | |
|---|------------------------------------|----------------------|--|--------------------|
| 1. The following indications appeared on record concerning: <input type="checkbox"/> the applicant <input type="checkbox"/> the inventor <input checked="" type="checkbox"/> the agent <input type="checkbox"/> the common representative | | | | |
| Name and Address AXEL EHRNERS PATENTBYRÅ AB P.O. Box 10316 S-100 55 Stockholm Sweden | | State of Nationality | | State of Residence |
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| | | 46 8 459 18 00 | | |
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| 46 8 661 88 62 | | | | |
| Teleprinter No. | | | | |
| 2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning: <input type="checkbox"/> the person <input checked="" type="checkbox"/> the name <input type="checkbox"/> the address <input type="checkbox"/> the nationality <input type="checkbox"/> the residence | | | | |
| Name and Address EHRNER & DELMAR PATENTBYRA AB P.O. Box 10316 S-100 55 Stockholm Sweden | | State of Nationality | | State of Residence |
| | | Telephone No. | | |
| | | 46 8 528 025 00 | | |
| | | Facsimile No. | | |
| 46 8 528 025 90 | | | | |
| Teleprinter No. | | | | |
| 3. Further observations, if necessary: | | | | |
| 4. A copy of this notification has been sent to: <input checked="" type="checkbox"/> the receiving Office <input type="checkbox"/> the designated Offices concerned <input type="checkbox"/> the International Searching Authority <input checked="" type="checkbox"/> the elected Offices concerned <input checked="" type="checkbox"/> the International Preliminary Examining Authority <input type="checkbox"/> other: | | | | |
| The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland | Authorized officer P. Regis | | | |
| Facsimile No.: (41-22) 740.14.35 | Telephone No.: (41-22) 338.83.38 | | | |

PATENT COOPERATION TREATY

From the INTERNATIONAL BUREAU

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NOTIFICATION OF ELECTION
(PCT Rule 61.2)

To:
**Assistant Commissioner for Patents
United States Patent and Trademark
Office
Box PCT
Washington, D.C.20231
ETATS-UNIS D'AMERIQUE**

| | |
|--|---|
| Date of mailing: 27 April 2000 (27.04.00) | in its capacity as elected Office |
| International application No.: PCT/SE99/00260 | Applicant's or agent's file reference: 23454-PC |
| International filing date: 24 February 1999 (24.02.99) | Priority date: 21 October 1998 (21.10.98) |
| Applicant: KÄRSTEN, Toivo et al | |

1. The designated Office is hereby notified of its election made:

 in the demand filed with the International preliminary Examining Authority on:**29 October 1999 (29.10.99)** in a notice effecting later election filed with the International Bureau on:

2. The election was was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

| | |
|---|--|
| The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No.: (41-22) 740.14.35 | Authorized officer: J. Zahra Telephone No.: (41-22) 338.83.38 |
|---|--|

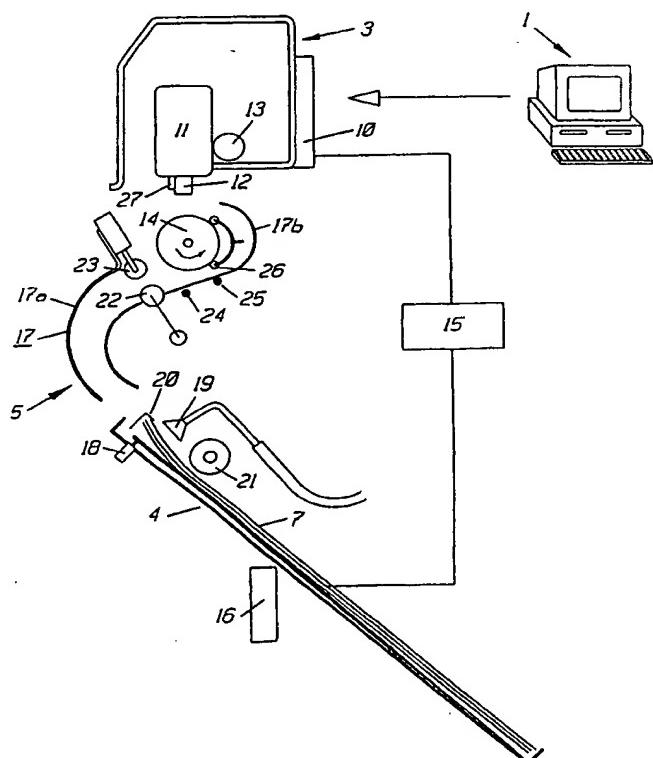
INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

| | | |
|---|----|---|
| (51) International Patent Classification 6 : B41F 33/00, B41J 13/00, B65H 15/00 | A1 | (11) International Publication Number: WO 00/23276 (43) International Publication Date: 27 April 2000 (27.04.00) |
| (21) International Application Number: PCT/SE99/00260 | | (81) Designated States: JP, US, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). |
| (22) International Filing Date: 24 February 1999 (24.02.99) | | |
| (30) Priority Data: 9803600-7 21 October 1998 (21.10.98) SE | | Published <i>With international search report.</i> |
| (71) Applicant (<i>for all designated States except US</i>): SOMITRACK AB [SE/SE]; Ferievägen 25, S-177 60 Järfälla (SE). | | |
| (72) Inventors; and | | |
| (75) Inventors/Applicants (<i>for US only</i>): KÄRSTEN, Toivo [SE/SE]; Bridgevägen 9A, S-142 66 Trångsund (SE). REHAL, Jagdev [SE/SE]; Ferievägen 25, S-177 60 Järfälla (SE). | | |
| (74) Agent: EHRNER & DELMAR PATENTBYRA AB; P.O. Box 10316, S-100 55 Stockholm (SE). | | |

(54) Title: METHOD AND APPARATUS FOR VERIFICATION OF IMPOSITIONS FOR PRINTING PLATES

(57) Abstract

A method and an apparatus for performing a double sided imposition verification on sheets (7) of paper or another material of impositions (9) prepared by means of digital data (1, 2) and comprising several print pages consisting of text and/or images, and comprising a printing unit (3) in the form of a plotter/printer having a paper magazine (4) and means (5) for feeding one sheet (7) of paper at the time into the printing unit (3), means (17) for guiding said sheet (7) of paper into the printing unit (3) and for turning said sheet (7) of paper for making it possible to print said sheet of paper on both sides thereof, means (24) for observing the existence of sheets (7) of paper in the feeder unit, and means (25) for observing the front/rear edge of a sheet of paper, feeder and stop means (22, 23, 26 <-> 14) for the sheet of paper, and means for turning the direction of rotation of the feeding-in and feeding-out means (22, 23) for sheets (7) of paper into and out from, respectively, said printing roll (14).



FOR THE PURPOSES OF INFORMATION ONLY

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

| | | | | | | | |
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| DK | Denmark | LR | Liberia | SG | Singapore | | |
| EE | Estonia | | | | | | |

INTERNATIONAL SEARCH REPORT

International application No.

PCT/SE 99/00260

A. CLASSIFICATION OF SUBJECT MATTER

IPC6: B41F 33/00, B41J 13/00, B65H 15/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC6: B41F, B65H

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE, DK, FI, NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

WPI, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|-----------|--|-----------------------|
| X | See the whole document (Messerschmidt, Niels. "Ny roll för storformatskrivaren". Aktuell Grafisk Information, Oktober 10/97, Nr. 284, sid 28-30. ISSN 0347-9846). -- | 1 |
| X | WO 9842509 A1 (BARCO GRAPHICS N.V.), 1 October 1998 (01.10.98), page 2, line 21 - line 27; page 3, line 13 - line 31; page 4, line 18 - line 27, claims 1,4,6, page 5, lines 1-28; page 6, lines 11-26; page 10. lines 13-27; page 11, lines 8-14 | 1 |
| Y | -- | 2-5,8 |

 Further documents are listed in the continuation of Box C. See patent family annex.

| | |
|---|--|
| * Special categories of cited documents: | "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention |
| "A" document defining the general state of the art which is not considered to be of particular relevance | "X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone |
| "E" earlier document but published on or after the international filing date | "Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art |
| "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) | "&" document member of the same patent family |
| "O" document referring to an oral disclosure, use, exhibition or other means | |
| "P" document published prior to the international filing date but later than the priority date claimed | |

Date of the actual completion of the international search

15 July 1999

Date of mailing of the international search report

09 -08- 1999

Name and mailing address of the ISA/
Swedish Patent Office
Box 5055, S-102 42 STOCKHOLM
Facsimile No. + 46 8 666 02 86Authorized officer

Teija Kurki
Telephone No. + 46 8 782 25 00

INTERNATIONAL SEARCH REPORT

International application No.

PCT/SE 99/00260

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|-----------|--|-----------------------|
| Y | US 4623900 A (WATANABE), 18 November 1986 (18.11.86), column 5, line 34 - line 57, figures 8, 9 -- | 2 |
| Y | GB 2168688 A (XEROX CORPORATION), 25 June 1986 (25.06.86), page 1, line 10 - line 15; page 1, line 51 - line 58; page 1, line 76 - line 115, page 2, lines 3-22 | 3-5,8 |
| A | | 6,7 |
| | -- | |
| Y | US 5415391 A (WONG ET AL), 16 May 1995 (16.05.95), column 2, line 30 - line 64, figures | 3-5,8 |
| A | | 6,7 |
| | -- | |
| A | US 5625766 A (KAUFFMAN), 29 April 1997 (29.04.97), see the whole document | 1 |
| | -- | |
| A | EP 0105468 A2 (TOPPAN PRINTING CO., LTD.), 18 April 1984 (18.04.84), see the whole document | 1 |
| | -- | |
| P,A | EP 0896939 A1 (SAMSUNG ELECTRONICS CO., LTD.), 17 February 1999 (17.02.99), figures 3A-3C, abstract | 3-8 |
| | -- | |
| A | Patent Abstracts of Japan, abstract of JP 6-219651 A (RICOH CO LTD), 9 August 1994 (09.08.94), abstract, figures | 2-8 |
| | -- | |
| A | Patent Abstracts of Japan, abstract of JP 60-191943 A (RICOH K.K.), 30 Sept 1985 (30.09.85), abstract, figures | 3-8 |
| | -- | |

INTERNATIONAL SEARCH REPORT

International application No.

PCT/SE 99/00260

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|-----------|---|-----------------------|
| A | Patent Abstracts of Japan, abstract of JP 8-310706 A (CANON INC), 26 November 1996 (26.11.96), abstract, figures -- ----- | 3-8 |

INTERNATIONAL SEARCH REPORTInternational application No.
SE99/00260**Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)**

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

See extra sheet

1. As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- The additional search fees were accompanied by the applicant's protest.
 No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORTInternational application No.
SE99/00260

The technical feature in common to claims 1-8 is a method for performing imposition verification on sheets, which are introduced through a feeding/turning unit to a printer. According to a digital information from a control unit of a printer, one side of the sheet is printed first and then the sheet is turned and the opposite side of the sheet is printed. A visual verification is made to determine that the impositions for the two print sides are located exactly. In case the exactness is lacking, corrections are made and a renewed verification printing is made.

The search has revealed two documents, a report from Niels Messerschmidt in Aktuell Grafisk Information 10/97 pages 28-30 and document WO 9842509 A1, which both show a similar method as claimed in the claim 1. The invention according to the claim 1 is therefore not novel and the technical feature mentioned above is thus not a special technical feature in the meaning of PCT rule 13.2. Claims 2-8 do thus not have any special technical feature in common and consequently constitutes 3 independent inventions.

Invention I: Claim 1, directed to a method for performing imposition verification on sheets.

Invention II: Claim 2, directed to a method of printing the sheet on a rotary printing roll, which rotates in a predetermined direction and which rotation is the same for both sides of the sheet.

Invention III: Claims 3-8 directed to a method and to an apparatus for feeding and turning the sheet.

INTERNATIONAL SEARCH REPORT

Information on patent family members

01/06/99

International application No.

PCT/SE 99/00260

| Patent document cited in search report | Publication date | Patent family member(s) | Publication date |
|--|------------------|--|--|
| WO 9842509 A1 | 01/10/98 | NONE | |
| US 4623900 A | 18/11/86 | DE 3442627 A,C JP 60110482 A | 30/05/85 15/06/85 |
| GB 2168688 A | 25/06/86 | NONE | |
| US 5415391 A | 16/05/95 | JP 7323941 A | 12/12/95 |
| US 5625766 A | 29/04/97 | NONE | |
| EP 0105468 A2 | 18/04/84 | DE 3377905 A JP 59214032 A JP 1602136 C JP 2027943 B JP 59062153 A | 13/10/88 03/12/84 26/03/91 20/06/90 09/04/84 |
| EP 0896939 A1 | 17/02/99 | CN 1208698 A JP 11058861 A | 24/02/99 02/03/99 |

PENT COOPERATION TREATY

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REC'D 12 FEB 2001

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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

| | | |
|---|---|--|
| Applicant's or agent's file reference 23454-PC/OH | FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416) | |
| International application No. PCT/SE99/00260 | International filing date (day/month/year) 24.02.1999 | Priority date (day/month/year) 21.10.1998 |
| International Patent Classification (IPC) or national classification and IPC7 B 41 F 33/00, B 41 J 13/00, B 65 H 15/00 | | |
| Applicant Somitrack AB et al | | |

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 4 sheets, including this cover sheet.

This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 3 sheets.

3. This report contains indications relating to the following items:

- I Basis of the report
- II Priority
- III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV Lack of unity of invention
- V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI Certain documents cited
- VII Certain defects in the international application
- VIII Certain observations on the international application

| | |
|--|--|
| Date of submission of the demand 29.10.1999 | Date of completion of this report 19.01.2001 |
| Name and mailing address of the IPEA/SE Patent- och registreringsverket Box 5055 S-102 42 STOCKHOLM Facsimile No. 08-667 72 88 | Authorized officer Teija Kurki / JA A Telephone No. 08-782 25 00 |

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/SE99/00260

I. Basis of the report

1. With regard to the elements of the international application:^{*} the international application as originally filed the description:pages 1-12, as originally filed

pages _____, filed with the demand

pages _____, filed with the letter of _____

 the claims:

pages _____, as originally filed

pages _____, as amended (together with any statement) under article 19

pages 13-15, filed with the demand

pages _____, filed with the letter of _____

 the drawings:pages 1-3, as originally filed

pages _____, filed with the demand

pages _____, filed with the letter of _____

 the sequence listing part of the description:

pages _____, as originally filed

pages _____, filed with the demand

pages _____, filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

 the language of a translation furnished for the purposes of international search (under Rule 23.1(b)). the language of publication of the international application (under Rule 48.3(b)). the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

 contained in the international application in written form. filed together with the international application in computer readable form. furnished subsequently to this Authority in written form. furnished subsequently to this Authority in computer readable form. The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished. The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.4. The amendments have resulted in the cancellation of: the description, pages _____ the claims, Nos. _____ the drawings, sheet/fig _____5. This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2 (c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

Internal Application No.
PCT/SE99/00260**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

| | | |
|-------------------------------|---------------|-----|
| Novelty (N) | Claims 1-7 | YES |
| | Claims | NO |
| Inventive step (IS) | Claims 1-7 | YES |
| | Claims | NO |
| Industrial applicability (IA) | Claims 1-7 | YES |
| | Claims | NO |

2. Citations and explanations (Rule 70.7)

The invention relates to a method and to an apparatus for performing a double sided imposition verification on sheets of paper or another material.

In the prior art it has been possible to check the correctness of impositions only from one side of the printing sheet. This causes problem, especially in the CTP (computer-to-plate) production, where the digital information is exposed directly to the printing plate without film handling processes, and when it is not possible to check that the impositions of both printing sides coincide with each other. Double sided printing is also well known in the prior art. However the invention according to the amended claims 1-7 presents a novel method and an apparatus for verification of impositions from both printing sides.

These documents were cited in the International Search Report:

D1: Messerschmidt, Niels. "Ny roll för storformatsskrivaren". Aktuell Grafisk Information, oktober 10/97, Nr. 284, pages 28-30. ISSN 0347-9846.

D2: WO 9842509 A1

D3: US 4623900 A1

D4: GB 2168688 A

D5: US 5415391 A1

..../....

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/SE99/00260

Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: V

Documents D1 and D2 show the closest prior art methods and apparatus for printing a double sided imposition verification of sheets. However they do not show a method or an apparatus described below, where the sheet of paper is fed with the front edge to a position against a stop edge and where the front edge is moved inwards by means of secondary feeder rolls. The sheet of paper becomes buckled and the front edge of the paper is straightened up. Thereafter the feeding of the paper is stopped and the front edge is pulled forwards and is kept secured by the printing roll and the counter press rolls of the printing unit. The rear feeder rolls are released so that the sheet is given a possibility to be rotated and straightened out, in case it has been positioned obliquely, and to enter an exactly correct position.

According to the arguments stated above, the invention according to the amended claims 1-7 is novel, involves an inventive step and has industrial applicability.

C L A I M S

1. A method for performing an imposition verification on sheets (7) of paper or another material of impositions (9) prepared by means of digital data (1, 2) and comprising several print pages (8) consisting of text and/or images using a printing unit (3) in the form or a plotter/printer having a paper magazine (4) and means (5) feeding one sheet of paper (7) at the time into the printing unit (3), characterized

in that a test print sheet (7) is introduced through a feeding/turning unit (17) of the printing unit (3) and is printed on one side of the sheet (7) based on digital information (1, 2) which has been received in a control unit (10) of the printing unit (3),

in that the sheet (7) of paper is turned upside down after the first page has been printed and the sheet is printed on the opposite side thereof based on digital information (1, 2) which has been received in the control unit or said printing unit (3),

in that a visual or another verification is made to determine that the print pages (8) of the impositions for the two print sides are located exactly as determined and that the impositions of the front and rear sides of the print sheet exactly coincide with each other,

and in that, in case any lack of exactness is observed, corrections are made in the computer unit (1, 2) for preparing text and/or images, whereupon a renewed verification printing is made as mentioned above.

2. A method according to claim 1, characterized in that the verification printing is made with the sheet (7) of paper supported on a rotary printing roll (14), in that the printing of the first side (the front side) of the sheet (7) of paper is made with the printing roll (14) rotating in a predetermined direction (counter clockwise direction as seen in figure 3), whereupon the sheet (7) of paper is turned and the opposite side (the rear side) of the sheet (7) of paper is printed in that the printing roll (14) is rotated in the same direction as in the

said first direction with the sheet (7) of paper turned upside down so that said opposite side (the rear side) of the sheet (7) of paper is facing the printing unit (3).

3. A method according to claim 1 or 2, characterized
5 in that the sheet (7) of paper is fed, with the front edge thereof, against a stop edge (26) at the printing unit (3),
 in that the sheet (7) of paper, from a place spaced rearwardly from said front edge is moved inwards a further little distance by means of secondary feeder rolls (22, 23), whereby the sheet (7) of paper becomes buckled,
10 whereupon the feeding of the sheet (7) of paper is stopped, the printing roll (14) and counter press rolls (26) are rotated slowly so that the front edge of the sheet (7) is pulled forwards and is kept secured by the print roll (14) and the counter rolls (26) of the printing unit,
 and the rear (secondary) feeder rolls (22, 23) are released so that the
15 sheet (7) of paper is given the possibility, in case said sheet happened to be positioned obliquely, of being rotated to enter an exactly correct position.

4. A method according to claim 3, characterized
 in that the turning of the sheet of paper is made in that said sheet of paper is kept secured during the printing of the first side of the sheet by the
20 secondary feeder rolls (22, 23),

- in that the rotation direction of said secondary feeder rolls (22, 23) is reversed,
 and in that the sheet (7) of paper is moved on, the front edge, upon need, is adjusted

- 25 and the sheet (7) of paper is printed in the same way as the first side thereof was printed.

5. An apparatus for executing the method according to any of the preceding claims, comprising

- means (1, 2) for preparing impositions in digital form comprising several
30 print pages (8) each containing text and/or images,

a printing unit (3) for printing of sheets (7) of paper,
a magazine (4) for plane sheets (7) of paper,
a feeder unit (17) for feeding sheets (7) of paper from said magazine (4)
to a printing unit (3) of a type known per se,

5 characterized in that the feeder unit (17) is formed as a combined feeder
and turning unit (5) for sheets (7) of paper comprising guide plates (17a, 17b)
for the sheet (7) of paper, stop means (26) arranged adjacent a printing roll
(14) of the printing unit (3), secondary feeder rolls (22, 23) in the feeding unit
(5) mounted spaced from said stop means (26) and arranged so that they can
10 be rotated in two opposite directions, so that they can be stopped in a locking
position for the sheet (7) of paper, and so that they can be opened for
releasing of the sheet (7) of paper or parts thereof.

6. An apparatus according to claim 5, characterized in that the turning
unit (5) for sheets (7) of paper comprises means (14, 26) for providing a stop
15 edge for the sheet (7) of paper and for providing

 a) a driving of secondary drive rolls (22) and counter rolls (23) co-
operating therewith,
 b) a stopping of said drive rolls (22) with the counter rolls (23) pressed
into contact with the drive rolls (22), and
20 c) a releasing of said counter rolls (23) from the secondary drive
rolls (22).

7. An apparatus according to claim 5 or 6, characterized in that the
stop edge for the sheet (7) of paper comprises one or more counter press rolls
(26) arranged for being pressed into contact with a printing roll (14) of the
25 printing unit (3) and, at still standing printing roll (14), to form a stop edge for
straightening up the sheet (7) of paper.

8. An apparatus according to any of claims 5 - 7, characterized in that
the feeder unit is formed with a sensor (24) for indicating the existence of a
sheet (7) of paper while feeding in such paper and turning same.